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Aphorisms on Tuberculosis

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When Dr. Chadwick was escorted to the Chair after being elected President of the National Tuberculosis Association, he said, "I feel very much like Noah Webster." It seems that the wife of the famous lexicographer came in one day and found him kissing the serving-maid. She said, "Why, Noah, I am surprised!" He replied at once, "You are not surprised, you are astonished. *I* am surprised."

Were I less familiar with the policies and politics of the Southern Tuberculosis Conference, I could share the feelings of both of the Websters.

But at that, I am not unmindful of the distinguished honor of being President of this worthy organization—a loosely knit and all embracing group of men and women representing many fields — medical, public health, administrative and lay—allied in one great cause—the promotion of health and the prevention of disease in our Southland.

At this moment, when men and nations are at each other's throats, mutilating, crippling, killing, it is a satisfaction to feel that we are enlisted in one army whose triumphs are measured in lives saved, not destroyed; in human bodies repaired, not maimed; in human suffering assuaged, not augmented—an army whose tactical objectives are to make "health more perfect, life more certain and death more remote."

I esteem it a great privilege to be Commanding Officer of such an army, and I am deeply grateful for this opportunity to serve.

Many, many years ago the great father of medicine wrote a series of medical aphorisms; in fact it was he who coined the term. Controversies as to his authorship of all of these and certain parts of some of them have frequently arisen, but the historians are all in accord that Hippocrates conceived the idea of expressing his views and experiences in terse sentences not easily forgotten.

Some of the commentators have said that these aphorisms were the "brain-children" of his old age, intimating that one never writes them until that period of life has arrived.

Joannes de Meditano and Herman Boehaarve wrote notable medical aphorisms in Latin. Those of the latter were published posthumously. He was probably old, too, when he wrote them.

In the latter half of the last century the distinguished English physician, Samuel Gee, published a small volume of "Clinical Aphorisms," each a medical gem, the product of keen observation and rich experience. He, too, I believe, was reaching towards the sunset.

More than two decades ago the much deloved Lawrason Brown contributed his "Tuberculosis Theses"—a series of epigramatic statements of truths, demonstrating his practical wisdom gleaned from a wide knowledge of the disease. At the time of this publication, his age belied the commentators, though his experience was ripe and his judgment rare.

So any of you who desire to write Aphor-

isms have abundant precedent, be they medical or philosophical.

Custom and tradition decree that the President of this Conference make an address on Tuberculosis. With your permission I am going to make Aphorisms about tuberculosis.

An aphorism has been defined as a term used to describe a principle expressed tersely in a few telling words, or any general truth conveyed in a short, pithy sentence, in such a way that when once heard is unlikely to pass from memory.

Humbly emulating but not competing with the great leaders of the past, I submit the following Aphorisms with the satisfaction of knowing that they will soon pass from memory, with confidence that they will not be accepted as truths, and the expectancy that they will be regarded as an evidence of my dotage:—

1—"Tuberculosis is as old as civilization itself," and it might become older if the civilized world does not soon become more civilized.

2—The decline in the death-rate in the past half-century from approximately 200 to less than 50 per 100,000 may be regarded as the outstanding public health accomplishment of all time. The factors concerned in bringing this about were both biological and economic, but the acceleration of the downward mortality trend in recent years was directly due to aggressive human effort.

3—Tuberculosis is a complex disease; its manifestations are many and varied. It frequently simulates other pathological entities; it may be acute, destroying life in a few weeks, or so chronic as to plague its victim throughout a long lifetime.

4—Tuberculosis may occur in infancy or in old age, but is especially prevalent in those years when the joy of living is keenest and the future beckons with alluring promise.

5—Our knowledge concerning the exciting cause, the pathology and treatment of tuberculosis is colossal, but our ignorance concerning the factors of resistance, immunity and allergy is abysmal.

6—Thirty years ago the late Charles L. Minor said, "There is only one treatment for tuberculosis in the Negro, and that is prevention." Accepting the broad implication in principle, it must be pointed out that many splendid results are being attained by the application of modern methods of therapy to this race.

7—The tuberculin test is an instrument of value in epidemiology. It has a certain place in differential diagnosis, but it is no short cut to the elucidation of tuberculosis.

8—The discovery, development and perfection of the X-ray has been the greatest of all contributions to the diagnosis of chest diseases, but its use on a national scale for the purpose of detecting tuberculosis will not prove as effective in the eradication of this disease as some of its sponsors believe.

9—The fluoroscope in proper hands is an efficient and economical weapon for the discovery of communicable tuberculosis.

10—The evolution of the tuberculosis sanatorium from the "shack" to the modern Sanatorium-Hospital, dramatizes the evolution of the therapy of tuberculosis.

11—The properly conducted community Tuberculosis Sanatorium fulfills a three-fold function—isolational, curative and educational. It is the hub around which the most effective program of preventive work revolves.

12—An alert, adequately trained medical profession is the vanguard in the attack on the ramparts of tuberculosis. A more widespread use of the Sanatorium facilities for under-graduate instruction will strengthen this force.

13—The introduction of collapse methods is a landmark in the progress of the therapy of tuberculosis; but these are only adjuncts to the cure of the individual case. The Sanatorium regimen, embracing rest, nutrition and discipline, still remains the sheet-anchor of successful treatment of this disease.

14—The recent brilliant achievement of Chemo-therapy in other serious infectious diseases inspire hope for its future in tuberculosis.

15—Federal aid for tuberculosis should be confined to assistance in hospital construction and to the handling of the problem of the dangerous transient; but under no conditions should Government control be permitted. This would stifle local initiative and discourage voluntary assistance.

16—Encouraging inroads against tuberculosis are being made, but many vital problems bearing directly upon its prevention remain unsolved. Their solution demands unremitting scientific research, wise medical leadership supported by an enlightened and generous public.

17—"Life is short, art is long, opportunity fugitive, experimenting dangerous, reasoning difficult."

I am thoroughly in accord with the old master, Hippocrates, in the last phrase of this, his first aphorism—"reasoning difficult."

Southern Tuberculosis Conference,
Charleston, South Carolina,
October 4th, 1939.

Painful Scars

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The scars that result from both surgical and accidental wounds usually lose their pain and tenderness shortly after the wound has healed. In the ordinary case within a month after primary healing the patient ceases to notice any annoying symptoms from the wound When infection has occurred, the scar may be painful until all signs of inflammation have subsided. The patient can be assured, when he complains of pain in his recently healed wound, that the pain will gradually disappear. However, an occasional case is seen in which the scar remains painful for long periods of time. The pain may be not only a source of annoyance but may be sufficiently disabling to demand treatment.

The symptoms of painful scar are usually related to pressure or stretching. It is a well recognized surgical principle that incisions should be avoided over areas of the body that receive pressure during ordinary activity. Scars on the ball of the finger tip and over pressure points of the sole of the foot are apt to be painful. Clothing may cause pressure on scars particularly about the forehead, shoulders, waist, and feet. Pain from tension on the scar is most often seen on the abdomen and about joints.

The pain of which these patients complain is intermittent and related to stimulation of the sensitive area during activity. The tenderness may be sufficiently marked that the slightest contact causes pain. In some cases an aching pain is set up which persists for some time even after a period of rest. With abdominal scars the symptoms may simulate intra-abdominal conditions. An incorrect diagnosis of post-operative adhesions is often made.

Careful sensory examination of the scar should be made in every suspected case. We have found in nine cases at the Roper Hospital that only a small portion of the scar was tender. In fact a single small point or area may be tender to pin prick or light pressure with a blunt instrument, while the remainder of the scar is not abnormally sensitive. Disappearance of the pain after nerve or field block with novocaine is further evidence that the cause of the trouble is in the scar and not in deeper structures. Repeated novocaine injections have been used by Leriche and others as a therapeutic measure in such cases.

The usual treatment of painful scar has been complete excision of the entire scar. It has been our practice during the past two years to excise only the small area found to be hypersensitive. We have performed this limited procedure in nine of our last ten cases. The only scar requiring complete excision was a diffusely tender keloid. The operation can be performed under local anesthesia without hospitalization. It is important carefully to mark the spot to be excised with ink or contrast dye before the field is prepared. The area removed depends upon the size of the scar and the extent of hyperalgesia. Our largest area was 2 x 2 cm. and the smallest 2 x 2 mm. Excision should be deep enough to include the full thickness of the scar. A few silk sutures suffice for closure.

It has been of interest to study the tissue removed for evidence of neuroma formation at

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these tender spots. In serial sections impregnated by special methods for nerve fibres we have been able to demonstrate neuromas in the majority of cases. Although these neuromas may reach a size of a millimeter or more, they are difficult to distinguish grossly from the scar tissue in which they are embedded.

The results of this simple treatment for painful scar have been quite satisfactory. In every case followed the pain has been relieved and has not returned. On the other hand a painful infected keloid has had some recurrence of pain several months after complete excision.

In recently healed painful scars a period of observation is indicated before surgical treatment is carried out. In many such instances the pain will disappear spontaneously. A low grade infection not visible externally may persist for several months and finally be overcome by the tissues. Sensitive regenerating nerves may become less and less tender as they acquire their protecting sheaths of myelin and Schwann cells. So, unless the pain is too severe, expectant treatment is justified for the first six months after the wound has healed. Local heat, immobilization, and protection of the wound from trauma are assistance in reducing the symptoms. If the pain persists after six months, excision of the painful area is indicated.

Summarizing, it is concluded that persistently painful and tender scars of long duration may be due to neuroma formation deep in the cicatrix at a single spot. Clinical examination for points of tenderness on pressure will reveal these spots. Simple excision of the tender area, without removal of the entire scar, will relieve the symptoms.

Pulmonary Complications as an Aid in the Diagnosis of Subphrenic Abscess

(Preliminary Report)

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Subphrenic abscess is a serious affection, having a general mortality of around 80%. Part of the responsibility for this high mortality must be assigned to the fact that it is a complication frequently of multiple liver abscesses, generalized septicemia, and other diseases of themselves having a serious prognosis. However, a large part of the mortality must be ascribed to the difficulty in making a diagnosis before the patient's resistance has been so lowered that he makes a poor recovery from operative drainage, or else dies without the diagnosis having been made.

Subphrenic abscess is a deep-seated affair, giving few symptoms of a definitely localizing nature. Patients having it commonly lie on the ward for days (or even weeks or months occasionally) with unexplained fever, poorly localized abdominal pain and an up-and-down course that has a gradually down-hill trend. Frequently some other abdominal septic process has been drained, and the persistent fever is explained on the basis of inadequate drainage, wound infection and the like. In other cases, as in perinephric abscess, the delay in focussing attention on the subdiaphragmatic area is responsible for failure of diagnosis.

A positive diagnosis of subdiaphragmatic abscess is not difficult to make, once suspicion of it has arisen. Practically all will show elevation of the diaphragm and frequently a gas bubble, by X-ray. An exploratory needle will generally settle doubtful cases, and operative drainage, if done early enough, is followed by a fairly high percentage of recoveries.

A considerable portion of the mortality, then, is caused by delay in diagnosis, and this delay is a result of the lack of localizing signs

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to focus suspicion on the subdiaphragmatic area.

During the past three years the author has been struck by the frequency of chest involvement in the cases of subdiaphragmatic abscess that he has seen. The first case bringing out this relation entered the hospital with a pleural effusion. The effusion was completely removed and an X-ray taken which disclosed, instead of parenchymatous lung disease, a slightly elevated diaphragm and a small gas bubble over the liver. Recovery followed uneventfully after operative drainage, and subsequently it was shown that the almost symptomless perforation of a peptic ulcer had given origin to the abscess.

This case was so impressive that it led to the diagnosis of two other cases. One was a case of perforated peptic ulcer who had been operated upon and then transferred to the medical ward for recovery. He developed a right-sided pleural effusion. X-ray after aspirating the effusion demonstrated a very large subphrenic abscess. The patient made a slow but complete recovery following its drainage.

The second case entered the medical ward with a pleural effusion one month after drainage of a perforated appendix. Again aspiration followed by X-ray showed a high right diaphragm. A moderate sized subphrenic abscess was drained, the pus showing ray fungi on microscopic examination. The patient subsequently died of generalized actinomycosis. In both cases, the occurrence of a pleural effusion following a perforated abdominal viscus so resembled the first case that the author immediately suspected subphrenic abscess and the diagnosis was quickly made.

In order to investigate further this coincidence, all cases of subphrenic abscess that could be found were collected from the Roper Hospital records. Ten cases only could be found, with seven deaths and three recoveries. Five cases were diagnosed ante-mortem, including the three recoveries. The remaining five cases were diagnosed only at autopsy. Of the ten cases, only two failed to show some pathology above the diaphragm. Two had simple pleural effusion, four had empyema, one an acute lung abscess, and one had transient pneumonitis in the lower lung lobe directly above the abscess.

The very high incidence of lung or pleural involvement in this series is striking. Since many cases of subphrenic abscess follow a perforated ulcer or appendix, the author believes that the occurrence of some pulmonary complication, especially pleural effusion or empyema, following rupture of an abdominal viscus, should cause the surgeon immediately to suspect a subphrenic abscess. Such a policy should result in prompt diagnosis of the disease and a considerable reduction in mortality.

This series of cases also should emphasize to the internist that pleural effusion and empyema are not always the result of chest disease, but that subdiaphragmatic pathology is also to be ruled out in his search for their underlying cause.

The Evolution of Knowledge of Tumors

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Governments have become interested in cancer: the lay population is being organized for action against the disease. It has come into recognition that it is one of the greatest slayers of human kind, commonly taking the bread winner or the spiritual guide of the family at a time when they are greatly needed.

The latest phase of evolution of our attitude toward cancer is that it constitutes a major public health problem, not from the standpoint of the older conception of the function of public health authority in the control of communicable disease, for cancer is not a communicable disease, but simply that we muster against it concerted effort.

There are now in the United States approximately one half a million sufferers from cancer, of whom about one hundred and fifty

thousand will die this year. In South Carolina there are some three thousand cases. Last year over nine hundred citizens of this State died of the disease, even though we have one of the lowest rates of occurrence among the states.

Cancer is a common disease and apparently always has been common. It is actually increasing in spite of steady improvement of measures against it. We believe that if the information we now possess and the measures of treatment now in hand can be more effectively and wider applied, perhaps as many as one half of those now being lost through cancer can be saved.

Among the profession as well as in the laity the attitude toward cancer is extremely pessimistic and it is the common belief that nothing particularly is being done or can be done about it. Against this pessimistic view should be measured a vote of optimism. In reality more has been done about cancer within the past one hundred years than in all the previous thousands of years of man's existence. It is interesting and enlightening to measure the present against the past in this respect.

It is apparent that ancients knew a good deal about cancer. Record of it occurs in the earliest writings preserved to us. Hippocrates (B. C. 460-375) gathered a considerable body of general facts about it, and he is credited with curing a cancer of the neck by cautery.

While the ways and means of treatment in that far day were much the same as today, with the exception of the modern adjunct of radium and the X-ray, ideas as to the nature and reason for the disease were primitive, of course. All disease was due to either excess or deficiency of blood, mucus or bile, and cancer arose from the accumulation of black bile. Remember that then the circulation was unknown, as was the construction of animal tissues. Such was the condition of knowledge of disease until the discovery of the circulation by Harvey in 1628, and the events following.

Conforming to the period, that is with the state of knowledge of fundamental matters, then arose the lymph theory, wherein cancer was conceived to be coagulated lymph escaped from the vessels.

It took the acromatic microscope, first appearing about 1824, a number of years after the founding of the Medical Society of South Carolina, to bring in the next era of cancer progress, and the first one on a firm basis. For the ensuing one hundred years, and up to the present, we have been busy learning the cellular structure of cancer, classifying its varieties and measuring their potentialities. We have learned that there is no special cancer cell, that the cells of all tumors are the progeny of those once normal. We have reached a time when no longer is neoplastic disease one, but a wide variety within a broad general class, even as small-pox and tuberculosis are different diseases within the infectious class.

Within this period of structural study, the so-called histological period, we have separated fundamentally the benign from the malignant tumors, we have learned that practically every kind of cell within the body may give birth to its own brand of both the above varieties. we have learned to identify the members of this great disease family, we have excluded many conditions which formerly were considered to be tumors from it, and we have learned to relate the characteristic behavior in individual tumors with their structure, and now undertake to apply our ideas of what will naturally happen and what treatment is best to apply to prevent that happening, by study of the structure of each individual case.

Naturally in this histological period arose theories of the nature and cause of tumors based upon structural study, and so most of us were drilled in undergraduate study in the so-called cell inclusion or cell displacement and in the tissue tension theories. I do not say that these theories are entirely out-grown just yet; there are certain aspects which might now be fitted to more recent ideas, but the original conceptions in them are now no longer generally tenable. They served an important function at a period of development, as did the sidechain theory in immunity. Under similar judgement is apparently obliged to come the current widely accepted and expressed theory of chronic irritation as the cause of cancer. What we really mean to say is that many cancers arise from a bed of chronic inflammatory disease, chronic structural change, but we do not know what factor in such

structural disorders is really the stimulus. When we speak of irritating cells into the lawless state which is cancer we are using a phrase which has no definite meaning. The things which we ordinarily think of as irritants certainly are not particularly carcinogenic factors, while the sort of state out of which many tumors appear to arise is certainly not an irritated state in the ordinary sense.

What we really mean is that some alteration in tissues the seat of prolonged disease is productive of a factor, as yet not detectable, which so alters cells that they are enabled to escape the checks and balances existing among organized animal tissues and to grow and behave in a lawless and destructive manner.

While the structural study of tumors has still much to offer in a thorough understanding of tumors, we have now entered upon a new era of the history of cancer, the experimental era, in which a number of significant happenings have already occurred and in which we may hope that preventive, diagnostic and therapeutic measures may be developed to lead at least to such control that it will no longer constitute the extreme hazard to mature adult-hood that it now does.

The first successful deliberate attempt to produce cancer by experimental means was that of Fibiger (1913) who brought about cancer of the stomach in rats by feeding them upon cockroaches infested by a small worm. The adult worm embedded itself in the stomach wall and there grew a cancer. What substance or factor came from the worm or the infected tissues to cause the cancer remains unknown. Analogous production of tumors by other animal parasite infection has been discovered since then, but in no case can these occurrences be said to contain significance in connection with the parasitic theory of causation of cancer.

The first experimentally produced neoplasm occurring from the use of a definite substance was that of the skin of rabbits from continued application of tar. But not all tars will produce cancer, nor will all animals respond to the application.

Since this occurrence cancer producing tar has been fractionated by distillation into its parts, chemically speaking, and some of its parts are carcinogenic (cancer producing) and some are not. The carcinogenic factors are hydrocarbons whose chemical structure has been determined and which may be synthesized. So now a definite chemical compound which may be depended upon to produce a cancer may be constructed by the chemist. This is possibly a long step toward determination of the carcinogenic factor in chronic inflammatory disease and it is a long journey from 1824.

Interestingly, it appears that carcinogenic hydrocarbon from tar is closely related, chemically speaking, to the sex hormones, to the sterols of our body metabolism, to bile acids, to vitamin D. In other words we contain within our anatomies substances closely akin to some which we know to be capable of producing cancer, and some of these naturally occurring substances have already been suspected of relationship to naturally occurring cancer, say uterine or breast cancer for example. However, more than excited interest in the comparison is not now justified.

Further, most interesting and perhaps significant are some occurrences in this era of experimentation in the relation of viruses to tumor growth. From certain tumors of other animals (rabbits, fowls) a filtrate may be made containing no discoverable cells or bacteria which when injected into another animal of the same species will produce the identical tumor, and this transmission may be repeated indefinitely. Filtrable viruses are generally looked upon as living organisms, too small to be seen with our means of vision, capable of getting through our finest filters. Are they living things? What is their chemical make up?

Then too, in the matter of hereditary influence in cancer have occurred events of significance in this experimental era. Maude Slye and Tyzzer and Morgan are names connected with pioneering here. Without making an intricate analysis of their work and of others, it may be said that by inbreeding from cancerous parentage strains may be developed which will all have cancer if allowed to live out their lives. Further, strains may be developed which will have some particular tumor of some definite location, say cancer of the breast for example.

We have always been interested in the possibility of an inherited influence in cancer occurrence in the human. Some have traced out family trees of so-called cancer families. Identical twins have been recorded as developing the same type of tumor at near the same time.

On the other hand, outbreeding will experimentally produce cancer resistant strains. Since the tendency in the human is toward outbreeding, it may be that the human race has reduced its possible cancer by this means. How much cancer we might otherwise have furnishes interesting speculation.

While no practical application of the possible relation of heredity to cancer is possible now, and while we should minimize at present the importance of the matter and not scare people with the idea, certainly mice and men are no different in their unavoidable submission to the laws of inheritance.

Many opportunities for productive investigation in the lines indicated and in others have been opened up in this experimental era. The metabolism of tumor cells, their transplantability, the matters of resistance and immunity, these and other aspects of the problem are being attacked in a promising manner. Constant improvement in application of measures of treatment is occurring. The next era in cancer history, whatever may be its trend, can hardly fail to take a long step toward effective control.

We have arrived at a time now when we know neoplastic disease structurally, but until further progress is made in diagnostic and treatment measures we are dependant for improvement of control upon getting the individual case in hand earlier. As we succeed in this direction diagnosis becomes more difficult but treatment more effective.

A Century and a Half of Progress in Surgery

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On this occasion of the sesquicentennial of the Medical Society of South Carolina I can think of no better introduction to a review of surgical progress than the words of one of its own members, the late Dr. Edward F. Parker:

"The march of civilization leads us with such impetuous haste that we seldom find time to review the lives and works of our honored surgeons of the past, to sing their praises and gratefully acknowledge our indebtedness to them for their services to us and mankind, or even to reflect upon their contributions to surgery, the benefits of which we have reaped a hundredfold, and to whose ability and genius this branch owes its present position in the foremost ranks of the medical science."

While space does not allow a review of the entire history of surgery during the past one hundred and fifty years, we can re-live a few of the pinnacles in its development that have contributed most to modern surgical science.

An important factor in the present high position of surgery is the growing insistence that only properly qualified men shall practice it. England was the pioneer country in demanding and enforcing adequate qualifications for surgeons from the sixteenth century on. On the example of the Royal College of Surgeons of England dating from 1800 the American College of Surgeons was founded in 1913. More recently special certifying boards with rigid requirements have been established so that in the future those who would call themselves surgeons must be indeed worthy of the name.

The introduction of anesthesia and of asepsis are the two greatest advances in the entire history of surgery. As early as 1800 Sir Humphrey Davy announced that inhalation of

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nitrous oxide was capable of destroying pain and suggested its use in surgery. In 1825 a young English physician named Hickman performed operations on anesthetized animals. Unfortunately both of these discoveries were ignored.

During this period nitrous oxide and sulphuric ether became well known to chemists who in particular noted the property of both materials to produce a type of intoxication when inhaled in sufficient quantity.

This brings us up to the actual discovery of surgical anesthesia by Dr. Crawford Long of Georgia. Crawford Long attended the University of Pennsylvania in 1838 and 1839, and, although there was an unusually good chemistry department under Robert Hare, Long was apparently introduced to the intoxicating effect of ether through wandering showmen who gave demonstrations on any of the audience who would volunteer, much like our present day hypnotists. Long settled in a very small Georgia town, Jefferson, near the State University at Athens. He immediately became very popular with all the young men about town by furnishing them with ether for parties. At this point comes Long's claim to fame. He noticed in the rough-house that followed the inhalation, that many severe bruises and lacerations were received without being felt. From this observation, using the words of the South Carolina Medical Association's Investigating Committee, who reported in 1883:

"Long reasoned it out in a philosophical and logical manner and was the first man intentionally to produce anesthesia for surgical operation and this was done with sulphuric ether in 1842."

Long's first patient was a man named Venable—he removed a large sebaceous cyst from his head while under complete anesthesia. From this time on he performed numerous operations under anesthesia, but being an exceedingly modest man and having no major cases, he did not report his work in the literature until after Morton (a dentist) had anesthetized a patient for Dr. J. C. Warren at the Massachusetts General Hospital. This operation was performed in October 1846 and was published in the Boston Medical and Surgical Journal one month later. Other pioneer workers in anesthesia were Charles T. Jackson (a chemist) who apparently had instructed Morton in the use of ether, and Sir James Y. Simpson, the Edinburgh obstetrician, who discovered the use of chloroform. It is interesting to recall that while anesthesia was widely acclaimed and almost immediately universally adopted in general surgical procedures, Simpson was severely criticized by both the profession and the clergy for using chloroform in obstetrics. Many sermons were delivered and several pamphlets were printed and circulated with numerous quotations from the Bible to show that "Woman was to deliver in pain and travail." In spite of this bigoted and unreasonable criticism, Simpson persisted in his great pioneer work of obstetrical anesthesia and lived long enough to see it completely accepted by all.

In one respect anesthesia was a great disappointment. Prior to its discovery a large proportion of surgical deaths had naturally been blamed on the shock following operation on a wide-awake patient, yet at the time anesthesia was introduced, about 50 per cent of surgical patients and 25 per cent of all patients admitted to hospitals, died. These high mortality figures had rapidly followed the introduction of hospitals.

In ancient times infections following wounds and operations were not frequent since there were no large hospitals with overcrowding of patients and almost inevitable contaminations and cross infections. However, with the establishment of large hospitals in the Middle Ages and the ignorance of the bacterial origin of infections, surgical mortality began to increase rapidly. It was held in abeyance as long as fresh wounds and incisions were treated with boiling oil, but following Ambroise Pare's suggestion about 1560, that this horrifying and painful procedure be discontinued, the mortality in hospitals soon reached 50 per cent. In spite of the fact that Anton van Leeuwenhoek described bacteria in 1675, no connection was made between them and disease and infection, until the time of Joseph Lister.

Joseph Lister was born near London in 1827. He graduated from University College Medical College in 1850 and, after a House Physician and Surgeonship at the University

Hospital, he was associated with Professor James Syme of Edinburgh University for eight years. Lister was appointed Professor of Surgery at Glasgow in 1860 and while here performed his memorable work in antiseptic surgery. At the time Lister began this experimental work, it was generally thought and taught that all post-operative cases and injuries had to show pus formation before they could heal. Lister, being a keen student of Nature and having a mind singularly free from conventions and convictions, disagreed with this and taught that pus formation was not a necessary part of the healing processes. Knowing Lister's great interest in inflammation and the kindred processes of decomposition and putrefaction, Professor Anderson, the chemist, called to Lister's attention the recent experimental work of the French chemist, Louis Pasteur. Lister immediately saw the truth of Pasteur's experiments proving that fermentation, putrefaction and decomposition could only occur if micro-organisms were present. Pasteur had prevented these processes in wines, vinegars, etc., by heat. Since it was obviously impossible to heat patients sufficiently to destroy germs, Lister immediately began to search for an adequate substance that would destroy the germs but would not injure the patient.

Antiseptic substances, at the time Lister began his experimental work, were used medically in two ways: First, several substances—notably alcohol and glycerine—were used successfully to preserve dead bodies and anatomical specimens. Second, various substances such as zinc chloride, iodine and crude coal tar, had been tried in hospital practice to combat "Hospital gangrene" and other infections. The latter use had been uniformly unsuccessful. The failure was not, primarily, through the lack of antiseptic quality of the substances used, but rather due directly to the method or lack of method of application. No one prior to Lister had realized that antisepsis had to be started immediately after an injury, or in surgery the antiseptic had to be correctly and intelligently applied before, during and following the operation. We must return to the point that the profession was not aware of the role that bacteria played in causing infection. Lister first successfully used his chosen antiseptic—carbolic acid—on comminuted fractures. He next boldly opened abscesses and infected joints after carefully sterilizing the skin and all the instruments with carbolic acid. Using this method he found that he could successfully evacuate pus from practically any part of the body without getting fatal secondary infections as had previously been the case. He first described his antiseptic system in an article in The Lancet in March, 1867. The title was: "On a New Method of Treating Compound Fractures, Abscesses, etc., With Observations on the Conditions of Suppuration." His work was ruthlessly criticized and it was not generally accepted for several years. The tale of his patient struggle is one of the most inspiring in medical history.

Lister made many other notable contributions to surgery, among them:

He developed and perfected the plain antiseptic and chromic absorbable catgut sutures and ligatures as used throughout the world today;

He devised new operations for the amputation of the thigh, excision of the wrist, amputation of the hip, and bloodless operations through properly applied pressure;

He was the first surgeon to do a radical breast amputation for carcinoma. Incidentally, the patient lived 20 years after the operation without evidence of recurrence.

He made great improvement in surgery of the blood vessels and bladder, and designed many instruments, not a few of which are still in use today.

He was the founder of surgical bacteriology.

Sir Frederick Treves paid the following tribute to Lister:

"Lister created anew the ancient art of healing; he made a reality of the hope which for all times sustained the surgeon's endeavors; he removed the impenetrable cloud which had stood for centuries between great principles and successful practice; and he rendered possible a treatment which had hitherto been but the vision of a dreamer. The nature of his discovery—like that of most great movements—was splendid in its simplicity and magnificent in its littleness. To the surgeon's craft it was but 'the one thing needful.' With it

came the promise of a wondrous future; without it was the hopelessness of an impotent past."

The surgical technique in use today is the Von Bergmann-Schimmelbusch modification of the original Lister technique.

Von Bergmann and Schimmelbusch demonstrated that if the surgeon's hands were carefully scrubbed with soap and water and rubber gloves then put on, and if the surgeon's and assistants' gowns and the drapes and swabs that came in contact with the patient were heat sterilized, then very little chemical antiseptics had to be used. A little carbolic acid or iodine applied to the patient's skin and the sterilization of sharp knives with chemicals were all that were needed. Their whole idea was to have everything possible sterilized before it was introduced into the operation, instead of destroying germs as the operation progressed. Von Bergmann conclusively proved that just as good results could be obtained in this manner as with the original Lister technique, which called for frequent swabbing of the operative field with carbolic acid, and for the surgeon and his assistants to repeatedly dip their hands in a carbolic solution. Von Bergmann termed this predominantly heat sterilization asepsis. Although Lister had used antisepsis and asepsis as synonymous terms, strictly speaking Von Bergmann's was the choice of terms. Asepsis literally means without germs (brought sterile to the operation), while antisepsis means against germs or something that destroys them, which was the action of Lister's carbolic antisepsis technique. Von Bergmann steadfastly refused to have his associates point him out as the father of a new system. He publicly declared that the basic principle of "Listerism" had not been altered.

The twentieth century has been marked by tremendous advances in operative technique that have vastly extended the use of surgery in the cure of disease. The cranial and thoracic cavities can now be explored with safety by the skilled operator. During his last year of active surgery the recently departed master surgeon, Harvey Cushing, was able to reduce his operative mortality for brain tumors to 8 per cent. In the past few years the operation of pneumonectomy has added carcinoma of the lung to the long list of maladies curable by surgery.

Operations on the sympathetic nervous system have introduced a new concept. Whereas classically surgery has been concerned with a more or less direct attack on the seat of disease processes whose pathologic anatomy is well known, sympathectomy consists in the removal of apparently normal structures to correct what Crile terms a pathologic physiology. Sympathetic interruption has thus benefited such varied conditions as arterial hypertension, Raynaud's disease, megacolon, cord bladder, and even angina pectoris.

Under special conditions the use of chemical antisepsis has continued to find a place in surgery. The results in the treatment of open infected wounds in the World War by Carrel-Dakin solution are still fresh in memory. The introduction by Domagk of the sulphanilamide group of compounds for chemotherapy has added another weapon to the surgeon in preventing and combating infections of various types.

"For one to deal in the future, one must look into the past where it lies mirrored." We of the present have benefited by the teachings of these men. They have made the achievements of Marion Sims, Kinloch, Battey, Ephraim McDowell and others possible. Will history write of the great achievements of Halstead, Murphy, Crile, Cushing, Mayo and others of our immediate day? Will the efforts of our younger men be such as to permit history to write of their accomplishments? Is it too far a hope to feel that it can write that the men of this generation have solved the cancer problem?

We are living in a day of momentous changes to which surgical science must adapt itself if it is to continue its triumphant march towards new pinnacles of achievement. As Bacon expressed it:

"I have hope and wish that the nobler sort of physicians will advance their thoughts, and not employ their time wholly in the sordidness of cures; neither be honored for necessity only; but that they will become coadjutors and instruments in prolonging and renewing the life of man."

A Brief Historical Retrospect

By

Robert Wilson, M. D., Charleston, S. C.
Dean Medical College of the State of South Carolina

With the approaching sesquicentennial of the Medical Society of South Carolina, now serving as the Charleston County Medical Society, it seems appropriate to recall briefly a few of the distinguished group of physicians whose scientific and literary work gave Charles Town no small measure of renown as a medical center during the colonial period.

A member of the medical profession was associated with the beginnings of the colony, rendering a service of the greatest value. In 1666, four years before the first settlement on the Ashley River four miles above the site of the present city, "Mr. Henry Woodward, a chirurgeon," accompanied the expedition of Robert Sandford to Port Royal and when Sandford returned to Cape Fear this adventurous pioneer voluntarily remained behind among the Indians at Port Royal in order that he might acquire a knowledge of their customs and language that might be of service to his countrymen. It is a high tribute to Woodward that the natives treated him "with greatest love and courteseye that their rude natures were acquainted withal." The knowledge gained among the Indians by this pioneer physician and the good-will which he won were probably the means of saving the settlers at Charlestown from starvation a few years later.

Dr. Woodward was a splendid example of the best and highest type of the physician who with determined courage and careless of life labors to extend the bounds of knowledge for the benefit of his fellow-men. His name is extinct, but his intrepid spirit and his bold genius have survived through more than two centuries in the blood of his descendants, among whom have been numbered many of the most prominent sons of the South—men who have distinguished themselves in letters, in law, in statesmanship, in journalism, in theology, in medicine and in science.

In the first three decades of the colony the most noteworthy medical event that is recorded was the establishment of quarantine regulations for the prevention of the spread of contagious diseases. This was in 1698, and was the second quarantine act passed in the colonies, that of Massachusetts in 1648 having been the first. Violators ran the risk of being fired upon by the gunner and of paying a fine.

As early as 1696 the citizens of Charlestown turned their attention to the medical care of the poor as indicated by an act passed in that year. Again in 1712 another act was passed "for the better Relief of the Poor of this Province." Apparantly this eleemosynary work was administered through the parishes of the city and some of the outstanding practitioners seem to have served the poor. About 1736 hospital accommodations were provided through the agency of the vestry of St. Philip's Parish.

After the establishment of the Royal Government physicians of a high order of attainment, most of whom were Scotsmen, began to emigrate to Carolina. In 1728 came John Moultrie, who was "descended from an ancient Scottish family possessed of landed estates known as Roscobie, between Lochlevin and Dunfermline." He was educated in Edinburgh and became a leading practitioner in the colony. In 1755 we find him president of the Faculty of Physic formed "for the support of the Dignity and Privileges and Emoluments of the Humane Art, especially of those allowed them by the King's authority, national customs, and usages of all places and provinces, Charlestown alone excepted." So it seems that already Charlestown was "unique." Let us hope, however, that some support was given the doughty faculty who bravely resolved unanimously "that after the tenth instant (June, 1755) they will give no further attendance without a reasonable fee paid at the first visit, and at every other visit during the course of their attendance." We may entertain a suspicion that the medical faculty did not enjoy universal confidence for we find Eliza Lucas writing to a London friend one November describing a headache for which she desired "meddicines" from "the good Dr. Mead." The

Dr. Francis Randolph Packard, Philadelphia
Guest Speaker at the One Hundred and Fiftieth Anniversary of the Medical Society of South Carolina (Charleston County).

Dr. Francis Randolph Packard was born in Philadelphia, Pennsylvania, March 23, 1870. He graduated in the biological department of the University of Pennsylvania in 1889 and continued his medical studies there receiving his M. D. degree in 1892. He was married twice, his first wife having died in 1901, and has four children. In 1894-95 he was Resident physician at the Pennsylvania Hospital and since that time has served as ex-professor of otology, Post Graduate School, University of Pennsylvania and chief laryngologist, otologist, Pennsylvania Hospital.

His war record is as follows: served as 1st Lieutenant Spanish American War; Comm. 1st Lt., M. C., U. S. A., May 16, 1917; Capt. September 1, 1917; Major October 1, 1918; sailed for France May 18, 1917 with Base Hospital 10; chief centre consultant, District of Paris, in oto-laryngology, October 1918-January 1919.

He has been President of the following organizations; the College of Physicians of Philadelphia, 1931-34; American Laryngological Association in 1931; and American Otological Society in 1935 and is a member of the American Philosophical Society, the Delti Psi; the University Barge and Rose Tree Hunt Clubs of Philadelphia.

Dr. Packard has made several contributions to medical literature. He is the author of History of Medicine in the United States, 1st edition in 1901 and 2nd edition in 1931; Diseases of the Ear, Nose and Throat, 1900; The School of Salerno, 1920; the Life and Times of Ambroise Pare, 1921; The Gold Headed Cane, 1915 and is Editor at the present time of Annals of Medical History.

medicine in question was expected the following May. We trust the headache was neither severe nor constant if she had to wait six months for its relief.

John Moultrie was the father of four distinguished sons; Dr. John Moultrie, who remained a loyalist and became Lieutenant-Governor of Florida; General William Moultrie, of Revolutionary fame; Captain Thomas Moultrie, killed at the siege of Charlestown; and Alexander Moultrie, who became Attorney General under the constitution of 1766.

Two years after the arrival of Moultrie, John Lining, another Scotchman, settled in Charlestown. Lining not only practiced medicine successfully for thirty years, but also became famous for his meteorological observations and scientific experiments which were published in the Transactions of the Royal Society of London. He was the first experimenter in America in the field of nutritional physiology and was a student of electricity, about which he corresponded with Benjamin Franklin. His discussion of yellow fever, based upon his study of the epidemic of 1748, revealed a keenness of observation and a clear, logical faculty which led him to discard the currently accepted belief of its origination *de novo* and to assert that it was always imported, a position held by no other physician for many decades.

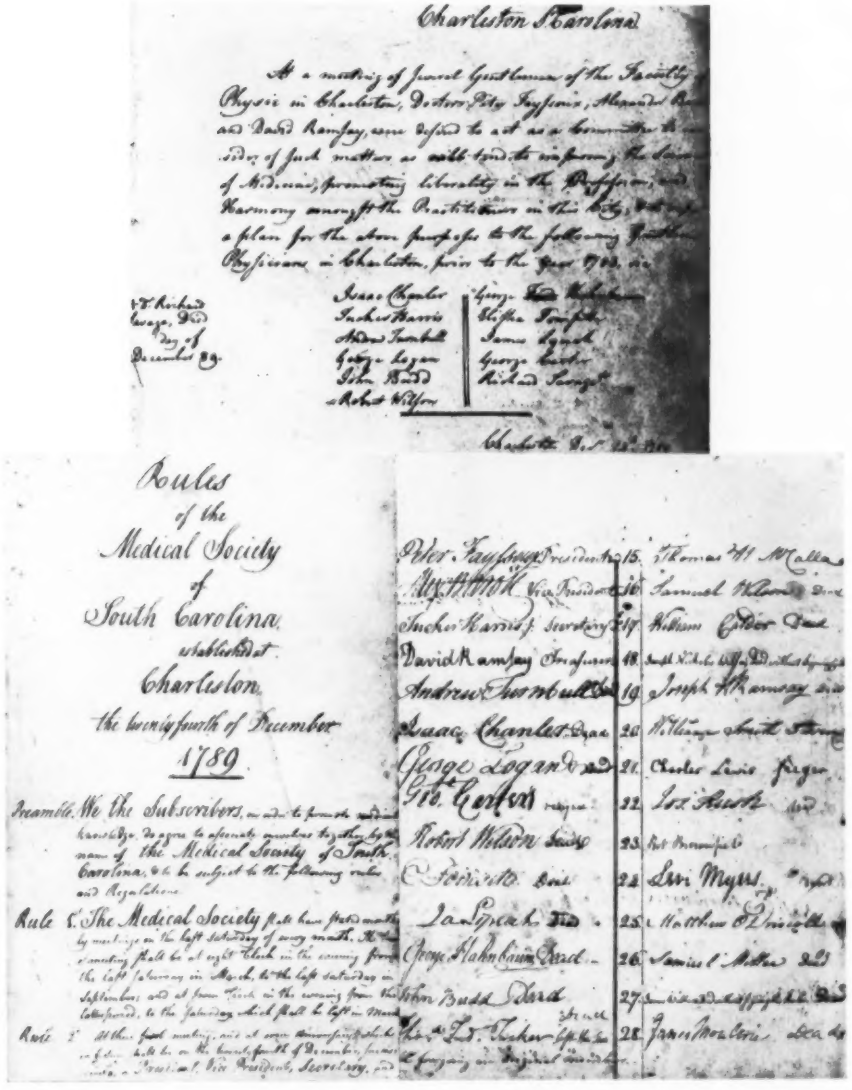
From Ireland came Dr. John Rutledge, who arrived in the province in 1735. He is chiefly famous as the father of John, Hugh, and Edward Rutledge, who played such distinguished roles in the history of South Carolina.

Another early meteorologist was Lionel Chalmers, who was a native of Cambleton on the West Coast of Scotland. For more than thirty years he practised medicine in Carolina, first in Christ Church Parish and then in Charlestown, where he spent most of his life. From 1750 to 1760 he made careful meteorological observations which were published in his work "An Account of the Weather and Diseases in South Carolina," published in London in 1776. He also wrote an "Essay on Fevers," and articles on opisthotonos and tetanus, which were published in the first volume of the Transactions of the Medical Society in London.

In 1734 at the University of Leyden, under the famous physician Boerhaave, was graduated William Bull, the first native South Carolinian and the first native American to receive the degree of Doctor of Medicine. His thesis on Colica Pictonum won for him a wide reputation and his famous fellow-student, Van Swieten, referred to him as "the learned Dr. Bull." If Bull practiced medicine it must have been for a very brief period, for he soon appears in public life, and like his contemporary, the distinguished Dr. Cadwallader Colden of New York, became the Lieutenant-Governor of his province. In such high esteem was he held by his contemporaries because of his rare judgement and his sense of right and justice, that many believed that had he been appointed dictator of the American provinces the Revolution might have been averted. Remaining loyal to the master under whom he held office, Dr. Bull left his home and took up his residence in London, where he died in 1791.

In 1748 Charlestown was visited by a severe epidemic of smallpox and Mr. Mabray, surgeon on a British man-of-war then in the harbor, introduced the preventive procedure of inoculation. In the face of much opposition the practice was adopted and carried on very successfully by Dr. James Killpatrick who afterwards removed to London where he acquired considerable reputation by his method of inoculation. This method seems to have been based upon the principle of attenuation, Killpatrick using the virus from inoculated subjects rather than from original victims.

Among colonial physicians Dr. Alexander Garden stands easily first. He was born in Aberdeenshire in 1728, and was educated in Aberdeen and in Edinburgh. Garden came to South Carolina about the middle of the Eighteenth Century and began the practice of medicine in Prince William's Parish, later removing to Charlestown. Although a classical scholar and proficient in mathematics, philosophy, history, and literature, his chief studies were in the natural sciences, especially botany, upon which his reputation mainly rests. It was in his honor that Linnaeus named a beautiful flowering shrub Gardenia. In 1772 "he was elected a Fellow of the Royal Society; and after



TOP: First entry in the original minute book of the Medical Society of South Carolina, 1789.
LEFT: First rules of the Medical Society of South Carolina.
RIGHT: Signatures of founders and early members of the Medical Society of South Carolina, 1789

his return to Europe in 1783 he was appointed one of its Council and afterwards one of its Vice Presidents."

More distinguished for his historical than for his medical contributions was Dr. David Ramsay, friend of Benjamin Rush, who settled in Charlestown just prior to the Revolution, in 1773. Ramsay at once took an active part in the stirring events of that period and was most active upon the side of the colonies.

This brief and cursory consideration of a few of the earlier Carolina physicians may serve to indicate the character of soil in which the Medical Society of South Carolina took root in 1789. Ours is the heritage of a fine tradition, embodying from its very begin-

Dr. Elisha Poinsett *Dr. Alexander Baron* *Dr. David Ramsay*
These three were among the founders of the Medical Society of South Carolina.

ning the restless spirit of investigation and careful clinical observation combined with broad culture. May its present and its future be worthy of its past!

PROGRAM

December 5, 1939

4:00 P. M. *at the Gibbes Art Gallery*

RECEPTION

Opening of an exhibit of paintings, books, prints and other material relating to the background of the Medical Society of South Carolina and to its early members.

Refreshments.

7:30 P. M. *at the Francis Marion Hotel*

BANQUET

Welcome by Henry W. Lockwood, Mayor of Charleston.

Welcome by Burnet R. Maybank, Governor of South Carolina.

An Historical Sketch of the Medical Society of South Carolina, Dr. James J. Ravenel, President.

Presentation of a Tablet from the South Carolina Medical Association to the Medical Society of South Carolina, Dr. William Weston of Columbia.

Greetings from the President of the South Carolina Medical Association, Dr. Douglas Jennings of Bennettsville.

An American Health Program, Dr. Nathan B. Van Etten of New York, President-Elect of the American Medical Association.

Scientific Links between Charleston and Philadelphia in the Eighteenth Century, Dr. Francis R. Packard of Philadelphia, Editor of the Annals of Medical History.

Dr. James Moultrie and Dr. James Moultrie, Jr. The former was first President of the South Carolina Medical Association and later President of the American Medical Association.

Joseph I. Waring, Secretary and Treasurer of the Medical Society of South Carolina, 1939.

James J. Ravenel, President of the Medical Society of South Carolina, 1939.

NEWS ITEMS

Robert L. McCrady, Vice President of the Medical Society of South Carolina, 1939.

The Medical Society of South Carolina celebrates on December 5th its one hundred and fiftieth anniversary. This is considered quite an occasion, for not only is one hundred and fifty years quite a record but the Society is the fourth oldest medical society in America, and is almost co-eval with the American Government.

The Medical Society of South Carolina is really the Charleston County Medical Society. Because it is one of the mother societies of the American Medical Association, and because under its charter it holds quite an endowment fund, the American Medical Association has allowed it to retain its original name.

The exercises commemorating the one hundred and fiftieth anniversary will follow the general plans of those of the one hundredth anniversary. We hope to have the Mayor of Charleston extend greetings; the Governor respond to the toast the State of South Carolina; an address by the retiring president; a few words of greeting from the president of the

South Carolina Medical Association; an address by the president-elect of the American Medical Association, and an address by Dr. Francis R. Packard of Philadelphia.

The Society will have as its guests representatives from the South Carolina Medical Association and a representative from each of the organized county medical societies.

The banquet will be at the Francis Marion Hotel at 7:30 P. M. and we hope that many of our friends throughout the State will join with us, lending support and dignity to this unusual occasion.

Except for the invited representatives of the various societies, the ticket to the banquet will be three dollars ($3.00). All who are planning to come will please notify Dr. J. I. Waring, No. 77 Rutledge Avenue so that they may be adequately provided for.

James J. Ravenel, M. D., President.

The Medical Society of South Carolina was founded December 24, 1789 by a group of physicians of Charleston, led by Drs. Peter Fayssoux, Alexander Baron, and David Ramsay. Although Charleston had many distinguished physicians before this time, they had never established any permanent Medical organization, even though the background of Colonial Medicine in Charleston was filled with notable figures whose work was well recognized at home and abroad.

Included in the original plan for the Society was an arrangement for a Public Dispensary, which was promptly opened and successfully conducted. The collection of valuable medical books which still remains in the possession of the Society was started in 1789 by the donation of various volumes by Drs. Robert and Samuel Wilson, and with later donations and purchases, grew into a circulating library of great value to the members.

In the early days of the Society meetings were held at the homes of the members, later at various taverns, in the Court House, in the old Medical College, then at the old Roper Hospital on Queen Street and finally in the present Roper Hospital. This hospital is now owned and operated by the Medical Society, and owes much of its earlier development to the benefactions of Mr. Alexander Shirras and of Mr. Thomas Roper. It is today the largest general hospital in South Carolina.

The Medical Society has initiated and sponsored many activities aimed at promoting the health of the city. At one time it conducted a Botanical Garden which was a scientific exhibit and a public pleasure. It also recorded observations of the weather for many years, and purchased an apparatus for the resuscitation of drowned persons. In its earlier days it was frequently consulted as an unofficial board of health by the civic authorities.

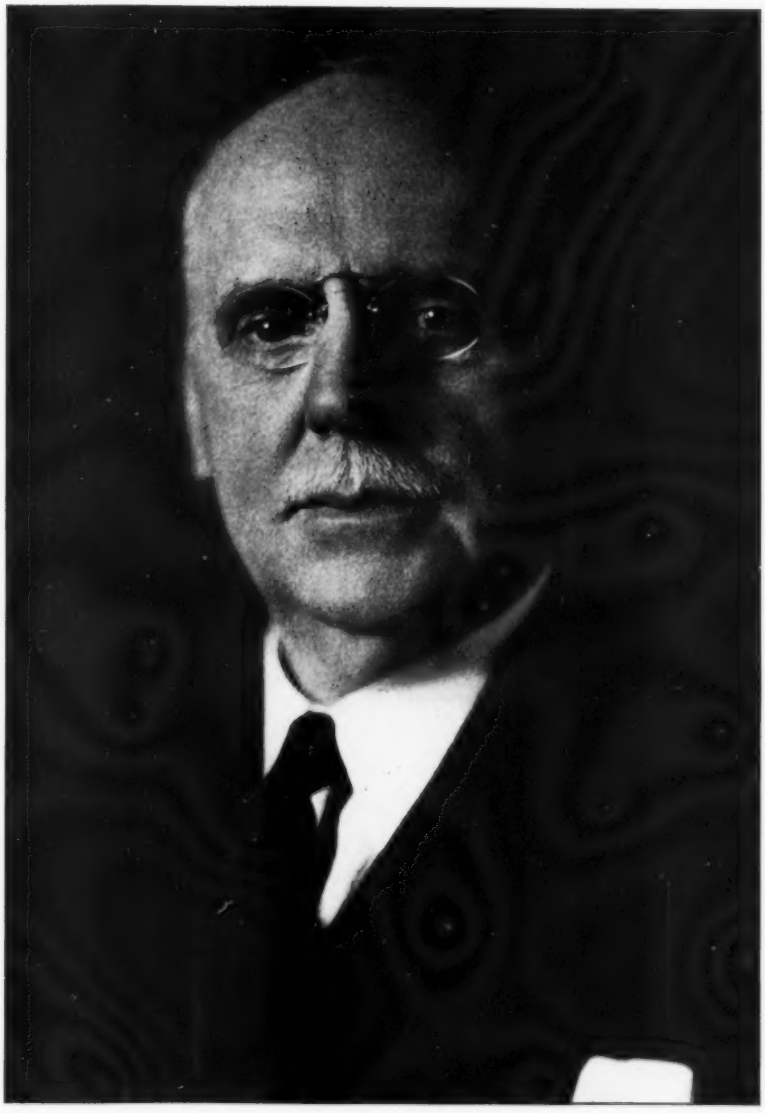
In 1822 a Medical College was established under the auspices of the Medical Society, whose members conducted the enterprise without financial aid from the Society or from the state, until at a later date the college assumed its present status and name—viz: The Medical College of the State of South Carolina.

Two medical journals, the "Carolina Journal" and the "Southern Medical and Surgical Journal" were products of the members of the Medical Society. Many scientific contributions in the form of books or articles have come from the membership of the Society in its long years of existence. The Society is fortunate in possessing the original minutes from the time of its establishment, and the new member today still signs his name in the book in which the minutes of the first meeting were written.

For a long time this Society was the only medical organization in South Carolina. In 1848 the Medical Society of South Carolina called a convention which formed the South Carolina Medical Association, of which the older Society then became a constituent member, although it retained its original name. One of its members, James Moultrie, was elected President of the new organization. Three years later, when the fourth annual meeting of the American Medical Association was held in Charleston, Dr. Moultrie was elected President of that National body.

The Medical Society of South Carolina now includes 106 members, and embraces the territory of Charleston County.

Joseph I. Waring, Secretary-Treasurer.



Dr. Nathan B. Van Etten, New York, N. Y.
President Elect American Medical Association, Guest Speaker at the One Hundred and Fiftieth Anniversary of the Medical Society of South Carolina (Charleston County).

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DECEMBER, 1939

CELEBRATION OF THE ONE HUNDRED AND FIFTIETH ANNIVERSARY MEDICAL SOCIETY OF SOUTH CAROLINA

This issue of the Journal has been dedicated to the Medical Society of South Carolina (Charleston County) the Mother Society of the South Carolina Medical Association. We extend our sincere felicitations to the Mother Society on attaining the one hundred and fiftieth anniversary of her founding and also on the distinguished service she has rendered not only to the medical profession of South Carolina but to the far flung empire of science in many parts of the world.

When the Medical Society of South Carolina was founded in 1789 the founders evidently had in mind that the Society would function as a State Society along with the State Societies of New Jersey 1766, Massachusetts 1781 and Delaware 1789, but following the organization of the American Medical Association in 1847 other plans for state organizations were adopted all over the country. It is fitting therefore that we present a copy of the minutes of the organization of the South Carolina Medical Association.

Minutes of the Proceedings of the Medical Convention of South Carolina Held in Charleston, February 14, 1848

In pursuance of a call made upon the Medical Profession of South Carolina by the Medical Society of South Carolina, a large number of physicians from all parts of the State, convened at 10 o'clock this morning, in the Hall of the Apprentices' Library Society.

On motion of Dr. W. T. Wragg, of Charleston, the meeting came to order, and Dr. James Moultrie, of Charleston, was called to the Chair, and Drs. D. J. C. Cain, of Charleston, and R. B. Johnson, of Camden, were appointed Secretaries.

On motion of Dr. W. T. Wragg, a committee of one from each District represented, was appointed to nominate permanent officers of the Convention. It was also resolved that the officers shall be a President, two Vice-Presidents, and two Secretaries.

The Committee was constituted as follows:

Dr. W. T. Wragg, of Charleston.
Dr. T. B. Dendy, of Abbeville.
Dr. H. W. Ford, of Colleton.
Dr. A. W. Youngblood, of Edgefield.
Dr. S. Fair, of Richland.
Dr. R. B. Johnson, of Kershaw.
Dr. R. E. Wiley, of Lancaster.
Dr. J. A. Mayes, of Sumter.
Dr. W. M. Shuler, of Orangeburg.
Dr. W. K. Sims, of Union.
Dr. J. R. Bratton, of York.
Dr. Alex Williams, of Chesterfield.

The Committee retired for a few minutes, and on their return, nominated the following gentlemen as officers of the Convention, who were thereupon unanimously elected:

Dr. James Moultrie, of Charleston, President
Dr. J. C. Ready, of Edgefield, Vice President
Dr. Isaac Branch, of Abbeville, Vice President
Dr. D. J. C. Cain, of Charleston, Secretary
Dr. R. B. Johnson, of Camden, Secretary.

The Convention was then organized and proceeded to business.

The new State organization pursued its course vigorously until the on-coming of the War between the States from 1861 to 1865. In 1869 a reorganization was effected and from that day to this there has been no further interruptions in the orderly sequence of meetings.

In 1904-05 the great reorganization plan of the American Medical Association was put into effect so that the county medical society became the corner stone of organized medicine in this country but instead of restricting the beneficent influence of the Medical Society of South Carolina (Charleston County) on State Medical Association affairs her wise counsels and far reaching initiative became more helpful.

The Charleston Society has made a profound impress on many of the major epochs of public health and medical progress in the State. The Journal owes its existence to members of the Charleston County Medical Society and it is not too much to say that the unfailing support of the Journal by the members of this Society has had much to do with keeping the Journal alive for thirty-five years.

The cooperation of the Medical Society of South Carolina (Charleston County) with the South Carolina Medical Association has indeed been most cordial throughout the entire history of the State organization. Perhaps the strongest tie between the two organizations has been that of a mutual interest in medical education and support of the Medical College of the State of South Carolina. The very first resolution adopted at the organization of the State Medical Association was to invite the presence of the faculty of the Medical College and the next was a mutual agreement to cooperate in raising the standards of medical education.

We wish to re-emphasize and rejoice with the Medical Society of South Carolina on its proud record as having played a significant part in the organization of the American Medical Association in 1847. In many respects 1847 was the golden age of medicine in the South and Charleston was in the very center of much of this activity numbering among the members of the medical profession there some of the most famous physicians in the world.

With one hundred and fifty years of glorious achievement behind her the future of the Medical Society of South Carolina seems assured of still greater progress.

BOOK REVIEWS

SYNOPSIS OF CLINICAL LABORATORY METHODS: By W. E. Bray, B. A., M. D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Fifty-One Text Illustrations. Seventeen Color Plates. Second Edition. Price $4.50. The C. V. Mosby Company, St. Louis, Missouri. 1938.

This is an excellent manual first published as a ready reference of the most frequently used methods of laboratory diagnosis after a long experience by the Author in teaching medical students and laboratory technicians. The popularity of the volume calls for another edition within two years in order to bring it up to date. This second edition includes sections on Undulant Fever, Determination of Sulfanilamide in the Blood, Cough Plate Method for Diagnosis of Whooping Cough, etc. There is a section on Surgical Pathology. There is a section on Indicators, Stains and Staining Solutions, Reagents, Removal of Laboratory Stains, Atomic Weights and Table of Equivalents. It is a handy volume for not only the medical student but the busy doctor. There are a large number of illustrations.

CLINICAL GASTROENTEROLOGY: By Horace Wendell Soper, M. D., F. A. C. P., St. Louis, Missouri. With 212 Illustrations. C. V. Mosby Company, St. Louis, Missouri, 1939.

The object of this work is to cover the field of gastroenterology with particular emphasis on diagnosis and treatment. It is written not only for the specialist in diseases of the digestive system, but also for the internist and the general practitioner of

medicine. The author of this book recognizes that to make a so-called complete gastroenterologic examination requires a somewhat extensive equipment but at the outset he has endeavored to show that much good work may be done by simple methods available to most general practitioners. He makes a good point in that in this field the general practitioner often sees the patient first and upon his decision depends very largely the success or failure of the subsequent treatment of the case. He even thinks that the tongue once universally examined but in more recent years not stressed very much is still worthy of being considered in a diagnostic check up. Of course any work of this character necessitates a generous presentation of illustrations, X-ray and otherwise, and here the author has not failed to do this to the number of more than two hundred. Peptic Ulcer comes in for a very full study. There is an interesting chapter on obesity and the final chapter is on Therapeutic Notes of a very practical scope. The bibliography is satisfactory and the entire book very interesting indeed.

OPERATIVE ORTHOPEDICS: By Willis C. Campbell, M. D., Memphis Tennessee, with 845 Illustrations including 4 color plates. 1939. Price $12.50. C. V. Mosby Company, St. Louis, Missouri.

Orthopedic surgery has made spectacular strides in the South in recent years and this book is a highly creditable contribution representing this progress. The author has intended the book to be a comprehensive work not only for the specialist but for many industrial and general surgeons. The field of the orthopedic surgeon has broadened very considerably in recent years and is by no means entirely operative in scope. The author recognizes this view-point in his book. This is a magnificent volume replete with an extraordinary number of fine illustrations. It is gratifying to note that the author has given credit to Dr. Austin Moore of Columbia, S. C., Associate Editor of the Journal of the South Carolina Medical Association, in orthopedic surgery for his method of internal fixation of fracture of the neck of the femur by stainless spring steel pins. Orthopedic surgeons now treat a large number of fractures so the author has written extensively on this subject. This is a book of more than one thousand pages and may well become an authoritative volume for both the general practitioner and the surgeon.

NEW AND NONOFFICIAL REMEDIES: Containing Descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1939. The American Medical Association, 535 North Dearborn Street, Chicago, Illinois. 1939.

The descriptions of accepted articles are based in part on investigations made by, or under the direction of the Council and in part on evidence or information supplied by the manufacturer or his agents. Statements made by those commercially interested are examined critically and admitted only when they are supported by other evidence or when they conform to known facts.

It is generally conceded that the Council on Pharmacy and Chemistry of the A. M. A. being one of the first of the great Councils established by the national association has rendered an extraordinary service to the people of the United States. If there was a closer adherence to the findings of this Council in the practice of medicine a much more satisfactory type of practice would probably be established. The Council maintains a laboratory second to none for testing out any and all remedial agents and reporting on the same. In this volume for instance there is a considerable report on anesthetics and this is extremely important in view of the vast literature and experimentation in progress throughout the world. Then the serums and vaccines come in for due investigation. Hundreds of other remedial agents have been studied and this report makes up a considerable volume of some seven hundred pages and should be available to every physician.

PRIMER OF ALLERGY: By Warren T. Vaughan, M. D., Richmond, Va. Illustrations by John P. Tillery. Price $1.50 The C. V. Mosby Company, St. Louis, Mo. 1939.

This is a guidebook for those must find their way through the mazes of this strange and tantalizing state. This subject seems to be of universal interest at the present time and the author has endeavored with good success to weave many essential truths about allergy through this little volume not only in the text but by means of the permission of H. T. Webster and the New York Herald Tribune to include Mr. Webster's cartoons.

SYNOPSIS OF PEDIATRICS: By John Zahorsky, A. B., M. D., F. A. C. P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, Pediatrician in Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by T. S. Zahorsky, B. S., M. D., Instructor in Pediatrics, St. Louis University School of Medicine. Price $4.00. The C. V. Mosby Company, St. Louis, Missouri.

This book was first published in 1934 and now comes the third edition thoroughly revised and with a very large number of admirable illustrations. The author is one of the Senior Professors of Pediatrics in America and he has incorporated in this manual a safe and sound plan of pediatric procedures particularly worthwhile for the general practitioner.

PSYCHOBIOLOGY AND PSYCHIATRY: A Textbook of Normal and Abnormal Human Behavior. By Wendell Munchie, M. D., Associate Professor of Psychiatry, Johns Hopkins University. With foreword by Adolf Meyer, M. D., LL. D.,

Sc. D., Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry, Johns Hopkins University. With 60 Illustrations. Price $8.00. The C. V. Mosby Company. St. Louis, Mo.

This book is a splendid treatise from the world famous Johns Hopkins Psychiatric Clinic. From which has gone out a profound impression on medical education in this country as pertains to psychiatric training of medical students. For instance in Chapter Two the following notation is taken. "For practical purposes the student is asked to make a study of a specific person, preferably himself, with the obligation to make the study as objective as possible by use of concrete performances to illustrate the points covered. Further, in order to stress the objective character of the observation and to give training in observation in, and understanding of the range and variation of the normal, the student is asked to give a characterization of the three most dissimilar students." The study further includes an auto biography by the students, etc. In fact there is a considerable chapter devoted to this phase of the student's orientation in his studies of psychiatry. From this point it is considered that he will have a clearer understanding of the subject when he gets out into actual practice.

Much is said today about behavioristic tendencies in early life. This book gives a considerable place to such investigations. Of course after the doctor makes the diagnosis modern medicine demands that something be done about the treatment of the patient and of course such a work as this goes into great detail along this line. The whole volume is a master piece.

A TEXTBOOK OF NERVOUS DISEASES: By Robert Bing, Professor of Neurology. University of Basel, Switzerland. Translated and enlarged by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. From the Fifth German Edition. With 207 Illustrations Including 9 in colors. Price $10.00. The C. V. Mosby Company, St. Louis, Missouri. 1939.

A new textbook on nervous diseases from such outstanding authorities and of such exhaustive scope will be welcomed by the profession in this country. Dr. Haymaker of the University of California has rendered a distinct service in his excellent translation. The physiological and anatomical illustrations are very good as are the numerous illustrations. While this book is a scientific treatise of unquestioned authority as to diagnosis the treatment of nervous diseases has been well covered and in this regard the translator has done much to clarify the suggested therapeutic measures of the German author. This is a volume of more than eight hundred pages.

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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THE INFANT AND CHILD IN HEALTH AND DISEASE WITH SPECIAL REFERENCE TO NURSING CARE: By John Zahorsky, A. B., M. D., F. A. C. P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine, and Elizabeth Noyes, R. N., Supervisor and Instructor of Pediatrics, Children's Hospital, San Francisco, California. Second Edition. Price $3.00. 1939. C. V. Mosby Company, St. Louis, Missouri.

This book has been written from the standpoint of the nurse. It contains a great deal of valuable information for the practising physician. There are many clear cut illustrations throughout the text.

CARDIOVASCULAR DISEASES. THEIR DIAGNOSIS AND TREATMENT: By David Scherf and Linn J. Boyd, M. D., F. A. C. P., Associate Professor of Clinical Medicine and Professor of Medicine respectively. The New York Medical College, Flower and Fifth Avenue Hospitals. Price $6.25. 1939. The C. V. Mosby Company, St. Louis, Missouri.

The authors state that in general the text has been suggested by student enquiries in the lecture room or by observation of their endeavours to apply information at the bedside. The authors state also that they have not intended to write a textbook of comprehensive proportions but on the other hand rather a practical manual for the student and physician in the ordinary pursuit of ways and means for treating the patient. Of course there is due emphasis on the role of digitalis in the treatment of these diseases along with many other measures found to have been of value. There is a chapter on diet.

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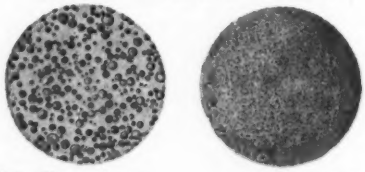

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